



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,577	12/14/2005	Pascal Denolly	Q88613	4484
23373 7590 04/28/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER VU, QUYNH-NHU HOANG				
ART UNIT		PAPER NUMBER		
3763				
MAIL DATE		DELIVERY MODE		
04/28/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/539,577

**Applicant(s)**

DENOLLY, PASCAL

**Examiner**

QUYNH-NHU H. VU

**Art Unit**

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3763

## DETAILED ACTION

### *Response to Amendment*

The Final rejection mailed on 12/07/01 has been withdrawn. The new ground rejection is changed by Examiner. Therefore, the present Office Action is made Non-Final.

Claims 2-12 are present for examination.

Claim 1 is cancelled.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8-10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Duchon et al. (US 2002/0151854)

Duchon discloses a distribution device for a system for delivery of medical fluids to a patient, comprising;

- a syringe body (16 or 18,)
- a feed tube 78 for an active medical fluid, opening into the syringe body (16/18) and designed to be connected to a reservoir 22 for the active medical fluid,
- a distributor /manifold 26 comprising a distributor body, within which there is bounded a chamber 26 for fluid circulation, and within the chamber 26 there are both a slide 376 or 364 (Figs. 7A or 7D), which can move in relation to the distributor body and which forms, with walls of the chamber, a compartment (where the spring 372, element 376 located within compartment, see Figs. 7A-D), and a resilient member 372 placed between the slide (376 or 364) and a fixed part of the distributor body,
- an injection tube/nozzle needle 80 (Fig. 7A or B) for the injection of the active medical fluid, connected to a distal extremity of the syringe body and opening into the chamber,

Art Unit: 3763

- a pressurised tube 28 or 84, designed to be connected to the patient through a pressurised line 30 of the system, and opening into the chamber,

- a pressure measurement tube 82, designed to be connected to a pressure measurement line 92 of the system, and opening into the chamber, and

- (see Fig. 2A), a flush tube 42 which is separate from other tubes (78, 80, 28 or 84, 82) of the device, which is formed in the distributor body and which comprises a first section, which is designed to be connected to a reservoir 50 for a flush medical fluid. It is noted that flush port 82 is formed in the distributor body/manifold 26, and since Duchon discloses that the manifold can take other configuration, such as if the manifold is larger configuration, the flush tube 42 is formed within the manifold; and a second section (located at portion 82 in Figs. 2A or 7A) opening directly into the chamber, said flush tube 42 being fitted with a valve 46 equipped with a plug (it is inherently the valve provides a plug/rubber membrane inside the valve 46 to control the fluid flow) which is located between the first and second sections of the flush tube and

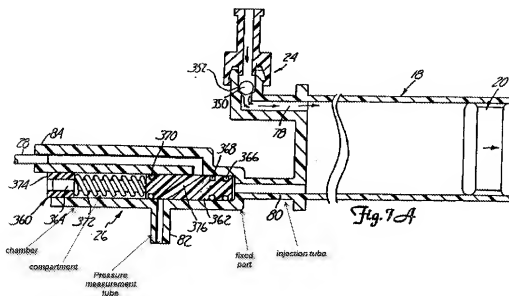
which can be moved manually between a position in which it at least partly closes the flush tube and a position in which the flush tube 42 is in free communication with the chamber,

wherein the distributor provides an automatic connection via the chamber between the pressurised tube (28/84) and either the injection tube 80 or the pressure measurement tube 82 through the action of the pressure of the active medical fluid and the resilient member 372, the active medical fluid circulating via the compartment between the pressurised tube and the pressure measurement tube 82 when they are in connection, and wherein the distributor connects the flush tube 42 with the pressurised tube and with the pressure measurement tube 82 via the chamber, the flush medical fluid circulating via the compartment 126 between the flush tube 42 and the pressure measurement tube 82 when they are in connection.

As noted that, beside the check valve 46 is inherently including the plug/rubber membrane, as mentioned earlier. With the broadest interpretation Examiner also considers the element 44 as a plug

Art Unit: 3763

because element 44 acts as a valve pinching/occluding tubing 42 (para [0086]).



Regarding claims 8-10, Duchon further discloses the feed tube (the tube connected to reservoir bottle 22) feeding the first active medical fluid is bounded by the distributor; the feed tube (the part 78 of the feed tube) and the injection tube 80 are in parallel directions (see Fig. 7).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duchon et al. (US 2002/0151854) in view of Oscarsson (US 4,645,496).

Duchon discloses a valve, but Duchon silent that the structure of the valve as described in claims 2-7.

Art Unit: 3763

Oscarsson discloses a valve device (Figs. 1-7) has a cylindrical drum element rotatably mounted with a chamber of a body member and able to adjust the flow rate by manually (see abstract); the two-way valve further comprises that a plug 50 or 52 or 80 or 108 and a means for resilient returning the valve into its closed position; a flexible blade 150 mechanically connected to the valve (Figs. 3, 5-7)

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the device of Duchon with a valve, as taught by Oscarsson, to manually control the fluid into the system.

Claims 2-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duchon et al. (US 2002/0151854) in view of Houde et al. (US 2004/0082904).

Regarding claims 11, Duchon discloses that the device as described in claim 12 above, Duchon further discloses a feed line 78 (vertical part connected with valve 24) fitted with a drip chamber and designed to be connected at one extremity to a reservoir 22 for contrast fluid and at its other extremity to the feed tube 78 of the distribution device,

a pressurized line (pressurized tube 28) comprising at one extremity a catheter 30 designed to be inserted into the patient's body and designed to be connected at its other extremity the pressurised tube 84 of the distribution device;

a pressure measurement line 90 or 92 incorporating a conduit 92 fitted with a pressure sensor (pressure transducer 38 must have pressure sensor) and designed to be connected to the pressure measurement tube 82 or 90 of the distribution; and

a flush line 42 comprising a flexible conduit fitted with a drip chamber (a bottom part with funnel-shaped of saline bag 50) and designed to be connected at the reservoir 50 for a flush solution. Duchon is silent about the feed line (line 78) comprising a flexible tube.

Houde discloses that a distribution system comprising a feed line (28a) for contrast product (12) comprising a flexible conduit (13) fitted with the contrast source (12).

Art Unit: 3763

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Duchon with a feed line connected with flexible conduit, as taught by Houde, to provide communication between the contrast fluid supplies to the syringe.

Regarding claims 2-7, Duchon discloses the invention substantially as claimed. Duchon does not clearly show the valve 46 or 48 of flush tube is supported by the body of the distributor/manifold. However, Duchon discloses that the workers skilled in the art will recognize that changes may be made in form and detail without departing from the spirit of scope of the invention (see para [0156]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the valve 46 of flush lines is supported by the body of the distribution, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Although the valve 46/48 located in different location and not supported by body of the manifold, however, the valve 46/48 is performing as the same function as the valve of claim of the invention. For example: the valve 46/48 is controlling the fluid flow.

Beside that, Houde discloses a similar device comprising: a valve 44 of flush tube 13 including a manual control level is supported by the body 38 of the distributor; a means for resiliently returning the valve into its closed position.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Duchon with a valve is supported by the body of distributor, as taught by Houde, in order to control the fluid flow in the device.

### ***Response to Arguments***

Applicant's arguments with respect to claims 2-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh-Nhu H. Vu whose telephone number is 571-272-3228. The examiner can normally be reached on 6:00 am to 3:00 pm.

Art Unit: 3763

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas D Lucchesi/  
Supervisory Patent Examiner, Art Unit 3763

Quynh-Nhu H. Vu  
Examiner  
Art Unit 3763